

AMENDMENTS TO THE CLAIMS

Claims 1-20 (Canceled)

Claim 21 (New) A high pressure water jet surface cutting device for cutting a resin matrix portion on a surface of a composite molded article that includes an irregular surface having a height from a foundation layer surface within a range of 1 to 100mm, the resin matrix portion having inorganic particles and a resin, and said cutting device comprising:

a high pressure water jet nozzle head that is movable in X and Y directions while being rotated about an axis of rotation; and

a plurality of high pressure water jet nozzles arranged on said nozzle head such that high pressure water jet centers of said nozzles are directed at inclined angles with respect to said axis of rotation so that the high pressure water jet centers of said nozzles will be directed at the inclined angles with respect to the foundation layer surface of the composite molded article while cutting the resin matrix portion;

wherein said plurality of high pressure water jet nozzles are positioned on said nozzle head with the high pressure water jet centers of said nozzles being directed at the inclined angles so that cutting of the resin matrix portion by jetting high pressure water from said nozzles while moving said high pressure water jet nozzle head in the X and Y directions and rotating said high pressure water jet nozzle head about the axis of rotation results in areas formed by loci of the jet centers with respect to the foundation layer surface against which the high pressure water is jetted and strikes being uniform.

Claim 22 (New) The device of claim 21, wherein the inclined angles of said plurality of high pressure water jet nozzles are directed at angles within a range of 45 degrees.

Claim 23 (New) The device of claim 22, wherein said plurality of high pressure water jet nozzles arranged on said nozzle head include high pressure water jet centers being inclined in a

direction away from the axis of rotation and high pressure water jet centers being inclined toward the axis of rotation.

Claim 24 (New) The device of claim 23, wherein, as seen in a plane perpendicular to the axis of rotation, the high pressure water jet centers that are inclined in a direction away from the axis of rotation are positioned to form a jet along a radial line in a direction away from the axis of rotation and the high pressure water jet centers that are inclined toward the axis of rotation are positioned to form a jet along a radial line in a direction toward the axis of rotation.

Claim 25 (New) The device of claim 21, wherein the high pressure water jet nozzles arranged at the inclined angles are at orthogonal positions to a tangent of said nozzle head so as to be directed outward of a rotation center of said nozzle head or directed inward toward the rotation center.

Claim 26 (New) The device of claim 21, wherein the high pressure water jet nozzles are arranged at at least two or more circumferential positions having different distances from a rotation center of said nozzle head..

Claim 27 (New) The device of claim 26, wherein at least some of the high pressure water jet nozzles are arranged at equal circumferential positions symmetrically about the rotation center of said nozzle head.

Claim 28 (New) The device of claim 26, wherein at least some of the high pressure water jet nozzles are arranged at equal circumferential positions, have the same inclined angles and form an equal arrangement with respect to a tangent to a circle of rotation of said nozzle head about the center of rotation.

Claim 29 (New) The device of claim 26, wherein the high pressure water jet nozzles arranged at the at least two or more circumferential positions have different inclined angles.

Claim 30 (New) A method of cutting a resin matrix portion on a surface of a composite molded article that includes an irregular surface having a height from a foundation layer surface within a range of 1 to 100mm using a high pressure water jet surface cutting device, the resin matrix portion having inorganic particles and a resin, said method comprising:

moving a high pressure water jet nozzle head in X and Y directions while rotating about an axis of rotation; and

directing high pressure water jet centers of a plurality of high pressure water jet nozzles arranged on the nozzle head at inclined angles with respect to the axis of rotation so that the high pressure water jet centers of the nozzles are directed at the inclined angles with respect to the foundation layer surface of the composite molded article while cutting the resin matrix portion;

wherein the plurality of high pressure water jet nozzles are positioned on the nozzle head with the high pressure water jet centers of the nozzles being directed at the inclined angles so that said cutting of the resin matrix portion by jetting high pressure water from the nozzles during said moving the high pressure water jet nozzle head in the X and Y directions and rotating the high pressure water jet nozzle head about the axis of rotation results in areas, formed by loci of the jet centers with respect to the foundation layer surface against which the high pressure water is jetted and strikes, being uniform.

Claim 31 (New) The method of claim 30, wherein the inclined angles of said plurality of high pressure water jet nozzles are directed at angles within a range of 45 degrees.

Claim 32 (New) The method of claim 31, wherein the plurality of high pressure water jet nozzles arranged on the nozzle head include high pressure water jet centers being inclined in a direction away from the axis of rotation and high pressure water jet centers being inclined toward the axis of rotation.

Claim 33 (New) The method of claim 32, wherein, as seen in a plane perpendicular to the axis of rotation, the high pressure water jet centers that are inclined in a direction away from the axis of

rotation are positioned to form a jet along a radial line in a direction away from the axis of rotation and the high pressure water jet centers that are inclined toward the axis of rotation are positioned to form a jet along a radial line in a direction toward the axis of rotation.

Claim 34 (New) The method of claim 30, wherein the high pressure water jet nozzles arranged at the inclined angles are at orthogonal positions to a tangent of the nozzle head so as to be directed outward of a rotation center of the nozzle head or directed inward toward the rotation center.

Claim 35 (New) The method of claim 30, wherein the high pressure water jet nozzles are arranged at at least two or more circumferential positions having different distances from a rotation center of the nozzle head..

Claim 36 (New) The method of claim 35, wherein at least some of the high pressure water jet nozzles are arranged at equal circumferential positions symmetrically about the rotation center of the nozzle head.

Claim 37 (New) The method of claim 35, wherein at least some of the high pressure water jet nozzles are arranged at equal circumferential positions, have the same inclined angles and form an equal arrangement with respect to a tangent to a circle of rotation of said nozzle head about the center of rotation.

Claim 38 (New) The method of claim 35, wherein the high pressure water jet nozzles arranged at the at least two or more circumferential positions have different inclined angles.

Claim 39 (New) The device according to claim 21, wherein the resin matrix portion has a thickness with a range of 10 μm to 10 mm.

Claim 40 (New) The cutting method according to claim 30, wherein the resin matrix portion has a thickness with a range of 10 μm to 10 mm.